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JAR-36: AIRCRAFT NOISE

Please find attached a copy of Amendment 1 to JAR-36, effective 1 November 2004.

Following the establishment of the European Aviation Safety Agency in September 2003 and the adoption of EASA Implementing Rules (IR), Certification Specifications (CS), and Acceptable Means of Compliance and Guidance Material (AMC) the Joint Aviation Authorities Committee made the decision that in future the JAA would publish amendments to the airworthiness JARs by incorporation of reference to EASA Implementing Rules, AMC and CS. Such publications would have a JAA cover with reference to the relevant EASA document, as well as any differences to it agreed by the JAA.

The appended JAR-36 is published following this decision, and replace the current JAR-36 Initial Issue.

Inge R Steenberg
Assistant to Regulation Director

Book Supplement

Joint Aviation Requirements

JAR–36

Aircraft Noise

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Amendment 1
1 November 2004

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The members of the Joint Aviation Authorities Committee are representatives of the Civil Aviation Authorities of the countries and of the European Aviation Safety Agency (EASA) that have signed the 'Arrangements Concerning the Development and the Acceptance of Joint Aviation Requirements'. A list of these members is kept by European Civil Aviation Conference, 3 bis Villa Emile Bergerat, 92522 NEUILLY SUR SEINE Cedex, France.*

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* These members are:

[Albania, Armenia, Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, European Aviation Safety Agency, Finland, Former Yugoslav Republic of Macedonia (FYROM), France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Norway, Poland, Portugal, Republic of Moldova, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine & United Kingdom.]

Transposition into JAR-36 (Amendment 1) of the noise requirements as published,

- a) In Article 6.1 of the Regulation (EC) No 1592/2002 of the European Parliament and of the Council dated 15 July 2002;
- b) In the Commission Regulation (EC) No. 1701/2003 dated 24 September 2003 amending the Article 6.1 to distinguish ICAO Annex 16 volume I and volume II;
- c) In the Article 21A.18 (a) of the Commission Regulation (EC) No. 1702/2003 dated 24 September 2003;
- d) In the Annex (also called CS-36) to the EASA Executive Director Decision 2003/4/RM dated 17 October 2003, amends the current JAR-36 (Initial issue dated 23 May 1997) as follows:

JAR-36 Section 1

JAR 34.1 Aircraft Noise

(See ACJ 36.1 and GM 36.1)

The applicable noise requirements for the issue of a type-certificate for an aircraft are prescribed according to the provisions of Chapter 1 of Annex 16, Volume I, Part II to the Chicago Convention

The aircraft must be designed to comply with the applicable noise requirements defined:

- for subsonic jet aeroplanes, in Volume I, Part II, Chapters 2, 3 and 4, as applicable;
- for propeller-driven aeroplanes, in Volume I, Part II, Chapters 3, 4, 5, 6 and 10, as applicable;
- for helicopters, in Volume I, Part II, Chapters 8 and 11, as applicable; and
- for supersonic aeroplanes, in Volume I, Part II, Chapter 12, as applicable.

JAR-36 Section 2

AMC 36.1 Aircraft noise

The acceptable means of compliance for aircraft noise are presented in:

- (a) for aeroplanes for which Chapter 2 of ICAO Annex 16, Volume I, Part II is applicable, Appendix 1 of ICAO Annex 16, Volume I;
- (b) for aeroplanes for which Chapter 3 of ICAO Annex 16, Volume I, Part II is applicable, Appendix 2 of ICAO Annex 16, Volume I;
- (c) for aeroplanes for which Chapter 4 of ICAO Annex 16, Volume I, Part II is applicable, Appendix 2 of ICAO Annex 16, Volume I;
- (d) for aeroplanes for which Chapter 5 of ICAO Annex 16, Volume I, Part II is applicable, Appendix 2 of ICAO Annex 16, Volume I;
- (e) for aeroplanes for which Chapter 6 of ICAO Annex 16, Volume I, Part II is applicable, Appendix 3 of ICAO Annex 16, Volume I;
- (f) for helicopters for which Chapter 8 of ICAO Annex 16, Volume I, Part II is applicable, Appendix 2 of ICAO Annex 16, Volume I;
- (g) for aeroplanes for which Chapter 10 of ICAO Annex 16, Volume I, Part II is applicable, Appendix 6 of ICAO Annex 16, Volume I;
- (h) for helicopters for which Chapter 11 of ICAO Annex 16, Volume I, Part II is applicable, Appendix 4 of ICAO Annex 16, Volume I; and

- (i) for aeroplanes for which Chapter 12 of ICAO Annex 16, Volume I, Part II is applicable, Appendix 1 of ICAO Annex 16, Volume I.

GM 36.1 Aircraft noise

Guidance material for the application of the certification specifications for aircraft noise is presented in:

- (a) for equations for the calculation of noise levels as a function of take-off mass, Attachment A to ICAO Annex 16, Volume I;
- (b) for evaluating an alternative method of measuring helicopter noise during approach, Attachment D to ICAO Annex 16, Volume I;
- (c) for applicability of noise certification standards for propeller driven aeroplanes, Attachment E to ICAO Annex 16, Volume 1;
- (d) for equivalent procedures for sub-sonic jet aeroplanes, Section 2 of the ICAO Environmental Technical Manual;
- (e) for equivalent procedures for propeller driven aeroplanes over 8,618 kg, Section 3 of the ICAO Environmental Technical Manual;
- (f) for equivalent procedures for propeller driven aeroplanes not exceeding 8,618 kg, Section 4 of the ICAO Environmental Technical Manual;
- (g) for equivalent procedures for helicopters, Section 5 of the ICAO Environmental Technical Manual;
- (h) for evaluation methods, Section 6 of the ICAO Environmental Technical Manual; (i) for measurement and analysis equipment, Section 7 of the ICAO Environmental Technical Manual;
- (j) for control of noise certification computer programme software and documentation related to static to flight projection processes, Section 8 of the ICAO Environmental Technical Manual;
- (k) for calculation of confidence intervals, Appendix 1 of the ICAO Environmental Technical Manual;
- (l) for identification of spectral irregularities, Appendix 2 of the ICAO Environmental Technical Manual;
- (m) for a procedure for removing the effects of ambient noise levels from aeroplane noise data, Appendix 3 of the ICAO Environmental Technical Manual;
- (n) for reference tables and figures used in the manual calculation of Effective Perceived Noise Level, Appendix 4 of the ICAO Environmental Technical Manual;
- (o) for worked examples of calculation of reference flyover height and reference conditions for source noise adjustments for certification of light propeller driven aeroplanes, Appendix 5 of the ICAO Environmental Technical Manual;
- (p) for noise data corrections for tests at high altitude test sites, Appendix 6 of the ICAO Environmental Technical Manual; and
- (q) for reassessment criteria for the re-certification of an aeroplane from ICAO Annex 16, Volume 1, Chapter 3 to Chapter 4, Appendix 8 of the ICAO Environmental Technical Manual.

References throughout these requirements to the ICAO Environmental Technical Manual refer to the ICAO Environmental Technical Manual on the Use of Procedures in the Noise Certification of Aircraft, CAEP Steering Group Approved Revision 7.

For all references to Agency please read Joint Aviation Authorities/Authority as appropriate.